

## Medical Glossary\*

**Allele** - A version of a gene.

**Chromosome** - Physical structure consisting of a large DNA molecule organized into genes and supported by proteins.

**CLIA** - Clinical Laboratory Improvement Amendments passed in 1988 by Congress to establish quality standards for all laboratory testing.

**DNA** - A nucleic acid that contains the genetic instructions used in the development and functioning of all known living organisms and some viruses.

**Gene** - The basic physical unit which provides all heredity character.

**Genotype** - The genetic constitution of an organism.

**Gene Sequencing** - Process by which the nucleotide sequence is determined for a segment of DNA.

**Genetic Variants** - An alteration in a gene distinct from the normal, wild type allele.

**Phenotype** - The observable physical and/or biochemical characteristics of the expression of a gene: the clinical presentation of an individual with a particular genotype.

**Polymorphism** - Natural variations in a gene, DNA sequence, protein, or chromosome that occur with fairly high frequency in the general population.

**SNP** - (pronounced snip) Single nucleotide polymorphism.

\* **GeneTests:** Medical Genetics Information Resource (database online). Copyright, University of Washington, Seattle. 1993-2010. Available at <http://www.genetests.org>.

## About AssureRx Health, Inc.

Cincinnati-based AssureRx Health, Inc., a personalized medicine company, is dedicated to helping physicians determine the right drug for individual patients suffering from a range of medical conditions. The company was founded in June 2006 to commercialize industry-leading, personalized medicine technology. Cincinnati Children's Hospital Medical Center and Mayo Clinic are equity holders and technology collaborators.

[www.assurrxhealth.com](http://www.assurrxhealth.com)

Rx Only

**AssureRx Health, Inc.**  
7264 Columbia Road, Suite 600  
Mason, Ohio 45039

**AssureRx**<sup>®</sup>

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**GeneSightRx**<sup>®</sup>

*Why should you take medicine personally?*  
**The Answer Is In Your Genes**

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## When it comes to prescribing medicine, one size doesn't fit all!

Personalized Medicine is a rapidly emerging field, and will change health care as we know it. In the current practice of medicine:

- Treatment is often determined by standard protocols
- Doctors routinely follow this method when selecting medications for their patients
- There are an average number of successful outcomes and an average number of treatment failures

**As a result ... every patient becomes part of an average, instead of being treated as a unique individual.**

## What is pharmacogenetics?

Pharmacogenetics is the study of how a person's individual DNA affects their response to medication. Every patient is a unique individual. This uniqueness is written into inherited genes.

Genetic differences:

- Can influence the efficacy of medications
- Can be the source of serious drug side-effects
- Can increase the risk for drug-to-drug interactions

**When doctors consider genetic differences hidden in each person's DNA, they may be able to make more informed medication choices for each individual patient.**

## GeneSightRx,® a pharmacogenetic test from AssureRx Health...

Our lab developed test examines certain genetic characteristics you have that may affect how your body reacts to many psychiatric medications. The resulting report reduces complicated research into an easy to understand explanation for your doctor.

- The testing process begins with a simple cheek swab, so there are no time consuming procedures for you to schedule
- It may reveal if there are potential drug-to-drug interactions or possible drug side-effects based upon your genes
- This aids in the understanding of how and why some medicines may react differently in you than they do in the average population

**The results of testing give you the confidence about your doctor's treatment choices, because it reveals genetic variations which could make some drug treatments less effective for you than for other patients.**

## How does testing help the doctor?

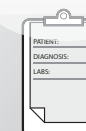
Pharmacogenetic testing helps the doctor determine how an individual patient may respond to medicines at particular doses.

The testing can help personalize medicine by providing doctors with precise genetic information for you as an individual patient.

This process provides fast, reliable results which, when taken into consideration with other factors, may help your doctor select more appropriate medications for you.

## How does it Work?

1



Physician diagnoses the psychiatric condition and orders the GeneSightRx® test

2



Patient's biologic sample is collected on site and shipped overnight to AssureRx Health's CLIA-certified lab

3



Genetic testing is performed and results are analyzed

4



Physician accesses results through secure online link

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